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RAW SEQUENCE LISTING
PATENT APPLICATION US/09/520,489DATE: 03/27/2000
TIME: 14:59:21

Input Set: I520489.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

1 <110> APPLICANT: BIOGEN, INC.
2 <120> TITLE OF INVENTION: April-A Novel Protein with Growth Defects
3 <130> FILE REFERENCE: A049PCT
4 <140> CURRENT APPLICATION NUMBER: US/09/520,489
5 <141> CURRENT FILING DATE: 2000-03-08
6 <150> EARLIER APPLICATION NUMBER: 60/079,384
7 <151> EARLIER FILING DATE: 1998-03-26
8 <150> EARLIER APPLICATION NUMBER: 60/058,756
9 <151> EARLIER FILING DATE: 1997-09-12
10 <160> NUMBER OF SEQ ID NOS: 4
11 <170> SOFTWARE: PatentIn Ver. 2.0
12 <210> SEQ ID NO 1
13 <211> LENGTH: 1346
14 <212> TYPE: DNA
15 <213> ORGANISM: Homo sapiens
16 <400> SEQUENCE: 1
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19 ttgccttcct cctccctcct ttttattttc aagttccctt ttatttctcc ttgcgtaca 180
20 accttcttcc cttctgcacc actgcccgt a ccccttaccgg ccccgccacc tccttgctac 240
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25 ggacaggagg ccctcccaga atggggaaagg gtatccctgg cagagtctcc cggagcagag 540
26 ttccgatgcc ctggaaaggcct gggagaatgg ggagagatcc cggaaaaggagc agcagtgc 600
27 accccaaaaac agaagaagca gcactctgtc ctgcacctgg ttcccattaa cgccacctcc 660
28 aaggatgact ccgatgtgac agaggtgtatgg tggcaaccag ctctttaggcg tggagaggc 720
29 ctacaggccc aaggatatgg tggcaaccatc caggatgtc gagtttatct gctgtatagc 780
30 caggtccctgt ttcaagacgt gactttcacc atgggtcagg tgggtctcg agaaggccaa 840
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32 tacaacagct gctatagcgc aggtgtcttc catttacacc aaggggatat tctgagtgtc 960
33 ataattcccc gggcaaggcc gaaacttaac ctctctccac atggAACCTT cctgggttt 1020
34 gtgaaactgt gattgtgtta taaaaagtgg ctcccagctt ggaagaccag ggtgggtaca 1080
35 tactggagac agccaagagc tgagtatata aaggagaggg aatgtgcagg aacagaggca 1140
36 tcttcctggg tttggctccc cgttcctcac tttccctt tcattccac ccccttagact 1200
37 ttgattttac ggatatcttgc tttctgttcc ccatggagct ccgaattctt gctgtgtgt 1260
38 agatgaggggg cgggggacgg gcgcaggca ttgttcagac ctggcggggg cccactggaa 1320
39 gcatccagaa cagcaccacc atctta 1346
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41 <211> LENGTH: 250
42 <212> TYPE: PRT
43 <213> ORGANISM: Homo sapiens
44 <400> SEQUENCE: 2

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45 Met Pro Ala Ser Ser Pro Phe Leu Leu Ala Pro Lys Gly Pro Pro Gly
 46 1 5 10 15
 47 Asn Met Gly Gly Pro Val Arg Glu Pro Ala Leu Ser Val Ala Leu Trp
 48 20 25 30
 49 Leu Ser Trp Gly Ala Ala Leu Gly Ala Val Ala Cys Ala Met Ala Leu
 50 35 40 45
 51 Leu Thr Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg Glu Val Ser Arg
 52 50 55 60
 53 Leu Gln Gly Thr Gly Gly Pro Ser Gln Asn Gly Glu Gly Tyr Pro Trp
 54 65 70 75 80
 55 Gln Ser Leu Pro Glu Gln Ser Ser Asp Ala Leu Glu Ala Trp Glu Asn
 56 85 90 95
 57 Gly Glu Arg Ser Arg Lys Arg Arg Ala Val Leu Thr Gln Lys Gln Lys
 58 100 105 110
 59 Lys Gln His Ser Val Leu His Leu Val Pro Ile Asn Ala Thr Ser Lys
 60 115 120 125
 61 Asp Asp Ser Asp Val Thr Glu Val Met Trp Gln Pro Ala Leu Arg Arg
 62 130 135 140
 63 Gly Arg Gly Leu Gln Ala Gln Gly Tyr Gly Val Arg Ile Gln Asp Ala
 64 145 150 155 160
 65 Gly Val Tyr Leu Leu Tyr Ser Gln Val Leu Phe Gln Asp Val Thr Phe
 66 165 170 175
 67 Thr Met Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Gln Glu Thr
 68 180 185 190
 69 Leu Phe Arg Cys Ile Arg Ser Met Pro Ser His Pro Asp Arg Ala Tyr
 70 195 200 205
 71 Asn Ser Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile
 72 210 215 220
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77 <210> SEQ ID NO 3

78 <211> LENGTH: 917

79 <212> TYPE: DNA

80 <213> ORGANISM: murine

81 <400> SEQUENCE: 3

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 84 tgatccaaca gacagagctg caaaggctaa ggcgggaggt gagccggctg cagcggagtg 180
 85 gagggcccttc ccagaaggcag ggagagcgc catggcagag cctctgggag cagagtccctg 240
 86 atgtccttggaa agccttggaaag gatggggcga aatctcgag aaggagagca gtactcaccc 300
 87 agaagcacaa gaagaagcac tcagtccctgc atcttggttcc agttaacatt acctccaagg 360
 88 actctgacgt gacagaggtg atgtggcaac cagtacttag gcgtgggaga ggcccctggag 420
 89 gcccaggag acattgtacg agtctgggac actggaattt atctgctcta tagtcaggc 480
 90 ctgtttcatg atgtgacttt cacaatgggt caggtggtat ctcgggaagg acaaggggaga 540
 91 agagaaaactc tattccgatg tattcagaatg atgccttctg atcctgaccg tgcctacaat 600
 92 agctgctaca gtgcagggtgt ctccatcta catcaagggg atattatcac tgtcaaaaatt 660
 93 ccacgggcaa acgcaaaaact tagccttct ccgcattggaa cattcctggg gtttgtgaaa 720
 94 ctatgattgt tataaagggg gtggggattt cccattccaa aaactggcta gacaaaggac 780

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95 aaggaacggt caagaacagc tctccatggc tttgccttga ctgttgttcc tccctttgcc 840
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101 <213> ORGANISM: murine
102 <400> SEQUENCE: 4
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107 Ile Gln Gln Thr Glu Leu Gln Ser Leu Arg Arg Glu Val Ser Arg Leu
108 35 40 45
109 Gln Arg Ser Gly Gly Pro Ser Gln Lys Gln Gly Glu Arg Pro Trp Gln
110 50 55 60
111 Ser Leu Trp Glu Gln Ser Pro Asp Val Leu Glu Ala Trp Lys Asp Gly
112 65 70 75 80
113 Ala Lys Ser Arg Arg Arg Ala Val Leu Thr Gln Lys His Lys Lys
114 85 90 95
115 Lys His Ser Val Leu His Leu Val Pro Val Asn Ile Thr Ser Lys Asp
116 100 105 110
117 Ser Asp Val Thr Glu Val Met Trp Gln Pro Val Leu Arg Arg Gly Arg
118 115 120 125
119 Gly Pro Gly Gly Gln Gly Asp Ile Val Arg Val Trp Asp Thr Gly Ile
120 130 135 140
121 Tyr Leu Leu Tyr Ser Gln Val Leu Phe His Asp Val Thr Phe Thr Met
122 145 150 155 160
123 Gly Gln Val Val Ser Arg Glu Gly Gln Gly Arg Arg Glu Thr Leu Phe
124 165 170 175
125 Arg Cys Ile Arg Ser Met Pro Ser Asp Pro Asp Arg Ala Tyr Asn Ser
126 180 185 190
127 Cys Tyr Ser Ala Gly Val Phe His Leu His Gln Gly Asp Ile Ile Thr
128 195 200 205
129 Val Lys Ile Pro Arg Ala Asn Ala Lys Leu Ser Leu Ser Pro His Gly
130 210 215 220
131 Thr Phe Leu Gly Phe Val Lys Leu
132 225 230

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